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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/361,803	07/27/1999	MITSUHIRO KUNIEDA	35.G2440	5976

5514 7590 02/06/2007

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER	
RODEE, CHRISTOPHER D	
ART UNIT	PAPER NUMBER
1756	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/361,803	KUNIEDA ET AL.	
	Examiner	Art Unit	
	Christopher RoDee	1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 August 2006*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *24 and 26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *24 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The response and declaration filed 24 August 2006 have been entered into the application. Because these communications were filed before the mailing date of the Final Office action they have been considered and are responded to in this Office action.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in US Patent Application Publication 2004/0214101 in view of Organic Photoreceptors for Imaging Systems to Borsenberger, pp. 6-19, 181, 182 & 203-211, and further in view of JP 01-84265, or Kawamorita *et al.* in US Patent 5,202,214, or Kovacs in US Patent 5,373,313.

The declaration filed in August 2006 tests the transmittance characteristics of Suzuki's Example 4 charge transport layer. As seen in the Figure accompanying the declaration, the transmittance of the layer between 400 and 450 nm varies from 0 to about 75 % (also see dec. ¶ 8). As it is understood by the Examiner, this data shows that the prior art does not inherently disclose the claimed transmittance.and is inferior to the transmittance of the instant application (see July 2006 response pp. 4 & 5).

A review of Suzuki shows that the reference is concerned with the light absorption properties of the photoreceptor. In ¶ [0035] the reference states,

"The electrophotographic photoconductor of the present invention is advantageous as the panchromatic photoconductor from the viewpoints of light absorption and sensitivity because the previously mentioned phthalocyanine pigment gives rise to light absorption in the wave range with long wavelengths of 600 nm or more, and exhibits high sensitivity therein, and the disazo pigment of formula (I) gives rise to light absorption in the visible region, and especially exhibits high sensitivity in the wave range of 400 to 700 nm."

Example 4 uses a combination of an azo pigment and a phthalocyanine as the charge generation materials, which are in a layer under the charge transport layer. As would be understood by one of skill in the art from the disclosure in ¶ [0035], the artisan wants the maximum amount of transmittance possible through the overlying charge transport layer so that the exposing light reaches the charge generation material. The more light that reaches the charge generation material the higher the sensitivity of the photoreceptor.

Given this disclosure the artisan would have found it obvious to maximize the transmittance of the charge transport layer in the exposure wavelength. We see this in Example 4 in the declaration evidence. The charge transport layer has maximum transmittance in the wavelength range of from about 465 nm to 550 nm, the upper limit tested. This is within the sensitivity wavelength range taught as effective for the disazo compounds (¶ [0035]).

The artisan would have also found it obvious to maximize the transmittance at any wavelength or range of wavelengths taught as effective for the charge generation materials. Because Suzuki specifically teaches that the disazo compounds have high sensitivity in the wave range of 400 to 700 nm the artisan would have found it obvious to optimize the transparency of the overlying charge transport layer in this wavelength range. So even though the Suzuki charge transport layer of Example 4 does not inherently have the sensitivity specified in the claims between 400 nm (the lower limit taught by Suzuki) and 450 nm (the upper limit

claimed) the artisan would have found it obvious through routine experimentation to produce a charge transport layer having optimum sensitivity between these wavelength values because they are part of the disclosure of Suzuki and Suzuki teaches the benefit of maximizing transmittance of the charge transport layer.

The evidence is not persuasive to overcome the rejection for the reasons given here and in the Office action of 28 August 2006, which is incorporated by reference.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on Monday to Thursday from 5:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

cdr
31 January 2007

CHRISTOPHER RODEE
PRIMARY EXAMINER